AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) An electrode comprising a first electrode material, an adhesion- promoting layer disposed on at least one surface of the first electrode material, and a layer of pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods disposed on at least a portion of the adhesion-promoting layer.

2. (Original) The electrode of claim 1, wherein the electrode is a gas discharge device electrode.

3. (Original) The electrode of claim 1, wherein the first electrode material is molybdenum.

4. (Previously Presented) The electrode of claim 1, wherein the adhesion promoting interlayer has a thickness of approximately 10-1,000 nm.

5. (Original) The electrode of claim 1, wherein the adhesion-promoting layer comprises a metallic material.

6. (Original) The electrode of claim 1, wherein the adhesion-promoting layer comprises a carbon-dissolving, carbide forming, or low melting point material.

7. (Original) The electrode of claim 5, wherein the metallic material comprises: Ni, Co, Fe, Si, Mo, Ti, Ta, W, Nb, Zr, V, Cr, Hf, Al, Sn, Cd, Zn, or Bi.

8. (Original) The electrode of claim 1, wherein the nanostructure-containing material comprises carbon nanotubes.

9. (Currently Amended) An electrode comprising a first electrode material, an adhesion- promoting layer disposed on at least one surface of the first electrode material, and a layer of pre-formed nanostructure-containing material comprising ~~The electrode of claim 8, wherein the carbon nanotubes comprise~~ single-walled carbon nanotubes disposed on at least a portion of the adhesion-promoting layer.

10. (Original) The electrode of claim 1, wherein the nanostructure-containing material is formed from: carbon, silicon, germanium, aluminum, silicon oxide,

germanium oxide, silicon carbide, boron, boron nitride, boron carbide, or a mixture thereof.

11. (Original) The electrode of claim 1, wherein the electrode is annealed.

12. (Currently Amended) An electrode comprising a first electrode material, an adhesion- promoting layer disposed on at least one surface of the first electrode material, and a layer of pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods disposed on at least a portion of the adhesion-promoting layer ~~The electrode of claim 1~~, wherein the electrode has a turn-on voltage required to produce an emitted electron current of approximately 1μA over an emission area of approximately 2.8cm^2 of approximately 1.2V/micron - 2.5V/micron.

13. (Original) The electrode of claim 1, wherein the electrode has a critical electric field of approximately 1.7 V/micron - 3.0 V/micron to produce a current density of approximately 1mA/cm^2 .

14. (Original) The electrode of claim 8, wherein the nanostructure-containing material covers the entire adhesion-promoting layer.

15. (Previously Presented) A gas discharge device comprising a sealed chamber containing at least one noble gas and a plurality of spaced electrodes, at least one electrode comprising a first electrode material, an adhesion-promoting layer disposed on at least one surface of the first electrode material, and a layer of pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods disposed on at least a portion of the adhesion-promoting layer.

16. (Original) The device of claim 15, wherein the first electrode material is molybdenum.

17. (Original) The device of claim 15, wherein the adhesion promoting layer has a thickness of approximately 10-1,000 nm and the nanostructure-containing layer has a thickness of approximately 1-100 μm.

18. (Original) The device of claim 15, wherein the adhesion-promoting layer comprises a metallic material.

19. (Original) The device of claim 15, wherein the adhesion-promoting layer comprises a carbon-dissolving, carbide forming, or low melting point material.

20. (Original) The device of claim 18, wherein the metallic material comprises Ni, Co, Fe, Si, Mo, Ti, Ta, W, Nb, Zr, V, Cr, Hf, Al, Sn, Cd, Zn, or Bi.

21. (Original) The device of claim 15, wherein the nanostructure-containing material comprises single-walled carbon nanotubes.

22. (Original) The device of claim 15, wherein the electrode is annealed.

23. (Original) The device of claim 15, wherein the electrode has a turn-on voltage required to produce an emitted electron current of approximately $1\mu A$ over an emission area of approximately $2.8cm^2$ of approximately 1.2V/micron - 2.5V/micron.

24. (Original) The device of claim 15, wherein the electrode has a critical electric field of approximately 1.7 V/micron - 3.0 V/micron to produce a current density of approximately $1mA/cm^2$.

25. (Original) The device of claim 21, wherein the nanostructure-containing material covers the entire adhesion-promoting layer.

26. (Original) The device of claim 15, wherein each of the plurality of electrodes comprise the first electrode material, the adhesion- promoting layer disposed on

at least one surface of the first electrode material, and the nanostructure-containing material disposed on at least a portion of the adhesion-promoting layer.

27. (Original) The device of claim 15, wherein the spaced electrodes define a separation distance of approximately 0.1-1.0 mm.

28. (Original) The device of claim 27, wherein the separation distance is approximately 1 mm.

29. (Original) The device of claim 27, wherein the separation distance is created by a ceramic spacer.

30. (Original) The device of claim 15, wherein the sealed chamber contains at least one inert gas at a pressure of 0.5-800 torr.

31. (Original) The device of claim 30, wherein the sealed chamber contains argon gas at a pressure of approximately 0.5 torr.

32. (Original) The device of claim 15, wherein the device exhibits a mean breakdown voltage of approximately 448.5V with a standard deviation of 4.58V measured over 100 surges.

33. (Original) The device of claim 15, wherein the device exhibits a breakdown voltage of approximately 400V after being exposed to 1000 surges.

34. (Original) A circuit comprising at least one of an interface device box and a central office switching gear, the circuit further comprising at least one gas discharge device as set forth in claim 15.

35. (Original) A telecommunications network comprising a gas discharge device as set forth in claim 15.

36. (Original) The network of claim 35, further comprising at least one of an interface device box and a central office switching gear.

37. (Original) The network of claim 35, wherein the network comprises an asymmetric digital subscriber line.

38. (Original) The network of claim 35, wherein the network comprises a high-bit-rate digital subscriber line.

39. (Previously Presented) A lighting device comprising a sealed chamber containing an excitable gas and at plurality of spaced electrodes, at least one of said

electrodes comprising a first electrode material, an adhesion-promoting layer disposed on at least one surface of the first electrode material, and a layer of pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods disposed on at least a portion of the adhesion-promoting layer.

40. (Original) The lighting device of claim 39, wherein the nanostructure-containing material comprises single-walled carbon nanotubes.

41. (Original) The lighting device of claim 40, wherein the adhesion-promoting layer comprises a carbon-dissolving, carbide forming, or low melting point material.

42. (Previously Presented) A method of providing a gas discharge device with smaller variances in mean breakdown voltage, increased breakdown reliability, smaller electron emission turn-on requirements, and stable electron emission at high current density, the gas discharge device comprising a sealed chamber containing at least one noble gas and a plurality of spaced electrodes, the method comprising:

applying an adhesion-promoting layer to a surface of at least one of the plurality of electrodes; and

applying a layer of pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods on to at least a portion of the adhesion-promoting layer.

43. (Original) The method of claim 42, further comprising the step of annealing the coated electrode.

44. (Original) The method of claim 43, wherein the step of annealing is carried out over a period of approximately 0.5 hr. at a pressure of approximately 5×10^{-6} Torr at a temperature of approximately 650-1150°C.

45. (Original) The method of claim 42, wherein the nanostructure-containing material comprises single-walled carbon nanotubes.

46. (Original) The method of claim 42, wherein the adhesion-promoting layer comprises a carbon-dissolving, carbide forming or low melting point material.

47. (Original) The method of claim 46, wherein the adhesion-promoting layer comprises: Ni, Co, Fe, Si, Mo, Ti, Ta, W, Nb, Zr, V, Cr, Hf, Al, Sn, Cd, Zn, or Bi.

48. (Original) The method of claim 42, wherein the method comprises applying the adhesion-promoting layer and nanostructure-containing layer to each of the plurality of electrodes.

49. (Original) The method of claim 42, wherein the nanostructure-containing material coves the entire adhesion-promoting layer.

50. (Original) The method of claim 42, wherein the adhesion-promoting layer has a thickness of approximately 10-100 nm and the nanostructure-containing layer has a thickness of approximately 1-100 μm.

51. (Original) The method of claim 42, wherein the at least one electrode is formed of molybdenum.

52. (Previously Presented) A device comprising an electrode, the electrode comprising a first electrode material, an adhesion promoter, and a pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods.

53. (Previously Presented) The device of claim 52, wherein the nanostructure-containing material comprises carbon nanotubes.

54. (Currently Amended) A device comprising an electrode, the electrode comprising a first electrode material, an adhesion promoter, and a pre-formed nanostructure-containing material comprising ~~The device of claim 52, wherein the carbon nanotubes comprise~~ single-walled carbon nanotubes.

55. (Previously Presented) The device of claim 52 wherein the electrode is annealed.

56. (Previously Presented) The device of claim 52, wherein the device comprises a gas discharge device.

57. (Previously Presented) The device of claim 52, wherein the device comprises a lighting device.

58. (Previously Presented) The device of claim 52 wherein the adhesion promoter comprises a carbon-dissolving, carbide forming, or low melting point material.

59. (Previously Presented) The device of claim 58, wherein the adhesion-promoter comprises an adhesion-promoting layer.

60. (New) An electrode comprising a first electrode material, an adhesion-promoting layer disposed on at least one surface of the first electrode material, and a layer of randomly-oriented pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods disposed on at least a portion of the adhesion-promoting layer.

61. (New) An electrode comprising a first electrode material, an adhesion promoter, and a randomly-oriented pre-formed nanostructure-containing material comprising at least one of nanotubes and nanorods.